er ID 72821

ust 16, 2011 10:34:28 AM

Rev... ID: D350-636-012

Accept

Setup Start

Stop

Item Name: Skidtube RH

Start Date: 8/16/2011 Start Qty: 1.00

Required Date: 8/26/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: Date: 11-08-14 Tooling: Date:

QC: Date: SPC (Y/N): Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	DOCUMENT CONTROL	0.00							
DC		0.00							
Document Control	Memo: Photocopy blue file and type labels per PPP D350-636-012 CHG 006								

Draw Nbr	Revision Nbr
D2750	F
D3492	C

11 10 14 (1)

for MLJ 11-10-13

72821

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
	Skidtubes								
Skidtubes		0.00							
Skidtubes									

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details).Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***

8-Open up holes for Detail B to 0.375" (4 holes per side)and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750 .Open up holes for ground handling and detail L to 0.500" (8 holes per side)

9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

MO

DL. 11/09/22

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	11-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: M118736 BG 11/10/04 12-Grind welds flush as per Dwg D2750 DP 11-10-5								
120 QC Quality Control	QC10- Inspect visual per QSI004- ground welds	0.00							
	Memo	0.00							
130 QC Quality Control	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish	**Memo**	0.00							
Hand Finishing									11/10/05
150	QC3- Inspect Part Finish	0.00							
QC	**Memo**	0.00							
Quality Control									11-10-5

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
	Skidtubes								
Skidtubes		0.00							
Skidtubes									

Memo

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

BB 11/10/05

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015
A/R Sikaflex-291 batch: 118393
exp. date: 12/04/05 DC/BB 11/10/05

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9)
A/R Aluminum Rod batch: M118736 BE 11/10/06

9- At section AP-AP drill out x-bolt spacer to 0.404" BE 11/10/06

10-Grind welds flush as per Dwg D2750

11-Spot face ground handling holes section (total of 4 places per side) as per DD 11-10-11

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM .

Item ID: D350-636-012 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	dwg D2750								
	12-Deburr holes								
170	QC10- Inspect visual per QSI004- ground welds	0.00							
QC	**Memo**	0.00							
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control									

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Pressure Wash per QSI005 4.3	0.00				1X	Ø	m-f	11/10/11
HandFinish	**Memo**	0.00							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				1X	Ø	m-f	11/10/12
Powdercoat	**Memo**	0.00							
Powder Coating	START TIME: 8:15 OVEN TEMPERATURE: 320°F FINISH TIME: 8:45								
M118439									
210	QC3- Inspect Part Finish	0.00				1		BR 11-10-12	
QC	**Memo**	0.00							
Quality Control	Inspect for foreign object per QSI 024								

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start**

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230		0.00							
HandFinish	HandFinishing					1	BL	11-10-12	
Hand Finishing		0.00							

Memo

1-Install inserts as per dwg D2750

2-Inspect for Foreign Objects

3-Spray inside of tube with "LPS-3"
batch: N/A.

4-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750
SIKA FLEX 241
BATCH: 118593.
EXP DATE: 12-5.

5-assemble o'ring to plug as per dwg D3492 and apply o'ring lube
A/R 55-o'ring lube batch: 110348.

6-Coat all exposed fasteners with "LPS Procyon"
batch: 114096.

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
250	Pick Kit	0.00							
Packaging	Memo	0.00							
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
QC	Memo	0.00							
Quality Control									

8/11/10/12

Recall/4/17

11 10 14

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 72821

Tuesday, August 16, 2011 10:34:28 AM

Item ID: D350-636-012 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Skidtube RH

Start Date: 8/16/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 8/26/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	Packaging	0.00							
Packaging	**Memo**	0.00							
Packaging	Package as per PPP D350-636-012 Rev I								
280	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

SP 11-10-14

11/10/14

MF 11-10-14

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:38 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:I 02.09.25 Rearranged procedure steps KJ
IPP Rev:J 06-03-29 As per Rev D EC
IPP Rev:K 06-07.13 As per dsi9343 EC
IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC
IPP Rev:M 08-04-22 update steps 4,13 DD verified by:EC
IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O 10.06.22 revise seq110 DD verf:EC IPP Rev:P 10.10.01 as per IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS4-1032-225		Purchased	No				Each	931.0000		38	BR 11-10-12.		
Insert													
				Location			**Loc Qty**		**Loc Code**	38.			
				ST282	118696.		931						
					110768		62						
					117717		9						
					118386		860						
AN3C5A		Purchased	No			230	Each	1,389.000	34	34	BR 11-10-12		
Bolt													
				Location			**Loc Qty**		**Loc Code**				
				FP-A			7						
					115835		7						
				ST350			1382						
					116419		28						
					116549		42			54			
					117343		500						
					117764		300						
					117872		12						
					118451		500						

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Picklist Print

Tuesday, August 16, 2011 10:34:38 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

AN3C6A BOLT	Purchased	No	230	Each	340.0000	4	4	BR 11-10-12.

Location		Loc Qty	Loc Code	
FP-A		1		
	111982	1		
ST351		339		
	111982	2		
	116419	23		
	116549	2		
	116704	12		
	117619	22		
	117688	28		
	117872	50		
	118422	200		4.

AN6C44A BOLT	Purchased	No	230	Each	127.0000	4	4	BR 11-10-12.

Location		Loc Qty	Loc Code	
FG		2		
	103964	2		
ST344		125		
	117950	25		
	118112	2		
	118332	48		
	118387	50		4

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:39 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

AN8C35A BOLT		Purchased	No	230	Each	135.0000	1	1	BR 11-10-12.

Location		Loc Qty	Loc Code	
FP		99		
	117511	33		1
	118286	66		
FP-A		1		
	115960	1		
ST345		34		
	117834	34		
ST346		1		
	114442	0		
	115188	0		
	115960	1		

AN960C10L washer	NAS1149C0332R	Purchased	No	230	Each	0.0000	38	38	38 - BR 11-10-12.

118354

D2745 Bushing		Manufactured	No	230	Each	341.0000	8	8	BR 11-10-12.

Location		Loc Qty	Loc Code	
FP-A		179		
	69529	155		8
	69816	24		
ST023		162		
	71835	162		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Picklist Print

Tuesday, August 16, 2011 10:34:39 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3488-042	Manufactured	No	230	Each	18.0000	1	1	BR 11-10-12
Blade Fitting Assembly, RH								

Location	Loc Qty	Loc Code	
FP008	18		
62003	1		
68109	7		
69904 ✓	10		1

D3492-1	Manufactured	No	230	Each	100.0000	8	8	BR 11-10-12.
Plug								

Location	Loc Qty	Loc Code	
FP 73402	100		8.
69531	8		
71836	92		

D3492-3	Manufactured	No	230	Each	189.0000	8	8	BR 11-10-12.
Plug								

Location	Loc Qty	Loc Code	
FP	189		
70692 ✓	9		
71838 ✓	100		7
72126 ✓	80		

D3535-25	Manufactured	No	230	Each	19.0000	1	1	BR 11-10-12.
Wearshoe								

Location	Loc Qty	Loc Code	
FP018	19		
62233	1		
69743 ✓	18		1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:40 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3536-25	Manufactured	No	230	Each	21.0000	1	1	BL 11-10-12.
Gasket								

Location	Loc Qty	Loc Code	
FP012 74526	21		1
70780	21		

D3537-1	Manufactured	No	230	Each	24.0000	3	3	BL 11-10-12.
Wearpad								

Location	Loc Qty	Loc Code	
FP 73395	17		3
71574	17		
FP017	7		
69817	5		
70686	2		

D3631-1	Manufactured	No	230	Each	275.0000	8	8	BL 11-10-12.
Washer								

Location	Loc Qty	Loc Code	
ST072	275		
68062 ✓	275		8.

D3672-1	Manufactured	No	230	Each	1,316.000	8	8	
Phenolic Washer								

N/A 11-10-11

Location	Loc Qty	Loc Code
ST074	1314	
64177	318	
66821	496	
72229	500	
ST077	2	
52505	2	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:41 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3791-1	Manufactured	No	230	Each	13.0000	1	1		BL 11-10-12.
Wearplate									

Location	Loc Qty	Loc Code	
FP017 72158	13		1
62239	2		
69282	11		

D3793-1	Manufactured	No	230	Each	19.0000	1	1		BL 11-10-12.
Wearshoe									

Location	Loc Qty	Loc Code	
FP018 73122	19		1
69285	1		
70781	18		

D3793-3	Manufactured	No	230	Each	25.0000	1	1		BL 11-10-12.
Wearshoe									

Location	Loc Qty	Loc Code	
FP018	25		
69283	1		
70813	12		
72160	12		1

D3794-1	Manufactured	No	230	Each	23.0000	1	1		BL 11-10-12.
Gasket									

Location	Loc Qty	Loc Code	
FP010	23		
70779	23		1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:41 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3794-3	Manufactured	No	230	Each	14.0000	1	1	BL 11-10-12
Gasket								

Location	Loc Qty	Loc Code	
FP010	2		
68357	2		
FP018	12		
70812	12		1

MS21043-6	Purchased	No	230	Each	589.0000	4	4	BL 11-10-12
NUT								

Location	Loc Qty	Loc Code	
FG	20		
103693	20		
ST301	569		4
112314	359		
117887	10		
118384	200		

MS21083C8	Purchased	No	230	Each	137.0000	1	1	BL 11/10/12
NUT								

Location	Loc Qty	Loc Code	
FP-B	1		
115884	1		
ST293	47		
118077	47		1
ST303	89		
115884	0		
117423	9		
118354	30		
118614	50		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:42 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

NAS1149C0832R WASHER	Purchased	No	230	Each	368.0000	1	1	BR 11-10-12	

Location		Loc Qty	Loc Code	
FP-B		38		
	114915	38		1
ST297		330		
	114915	330		

NAS1515H3L WASHER	Purchased	No	230	Each	152.0000	4	4	BR 11-10-12	

Location		Loc Qty	Loc Code	
FG	118686	40		4.
	102472	40		
ST277		112		
	113362	112		

NAS1611-010 O-RING	Purchased	No	230	Each	266.0000	8	8	BR 11 10 12	

Location		Loc Qty	Loc Code	
FP		228		
	117460	8		
	118077	20		
	118612	200		8
FP-A		38		
	110915	35		
	115589	3		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:42 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

NAS1611-013 O-RING	Purchased	No	230	Each	244.0000	8	8	BR 11-10-12.

Location	Loc Qty	Loc Code
FP	59	
117291	2	
117887	57	
FP-A	185	
116582	5	
118384	180	8.

AN8C21A BOLT	Purchased	No	250	Each	75.0000	2	2	

Location	Loc Qty	Loc Code
ST344	25	
117764	25	
ST345	50	
118045	50	118045

D2741 Blade, 350 Skidtube	Manufactured	No	250	Each	16.0000	1	1 70667	

Location	Loc Qty	Loc Code
ST466	16	
69133	16	

D3493-1 Washer	Manufactured	No	250	Each	59.0000	2	2	

Location	Loc Qty	Loc Code
ST062	59	
70697	59	70697

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Picklist Print

Tuesday, August 16, 2011 10:34:42 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3532-1	Manufactured	No	250	Each	27.0000	2	2		
Spacer									

Location		Loc Qty	Loc Code
ST065		27	
	69895	27	

69895

MS21083C8	Purchased	No	250	Each	137.0000	2	2		
NUT									

Location		Loc Qty	Loc Code
FP-B		1	
	115884	1	
ST293		47	
	118077	47	
ST303		89	
	115884	0	
	117423	9	
	118354	30	118354
	118614	50	

NAS1149D0863J	Purchased	No	250	Each	178.0000	2	2		11/10/11
WASHER									

Location		Loc Qty	Loc Code
ST298		178	
	118078	178	

118078

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Tuesday, August 16, 2011 10:34:42 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D2600-3-BENT	Manufactured	No	110	Each	23.0000	1	1	

Extrusion Bent

Location	Loc Qty	Loc Code	
LG 73253	23		1
66875	8		
70142	1		
72153	14		

mo 11-09-29

D2744	Manufactured	No	110	Each	29.0000	1	1	

Cap

BE 11/10/04

Location	Loc Qty	Loc Code	
LG002	29		
62715	1		
70881	28		1

D2739	Manufactured	No	160	Each	12.0000	1	1	

350 I Beam

Location 72154	Loc Qty	Loc Code	
LG	12		1
70823	12		

DR 11/10/05

D2743	Manufactured	No	160	Each	264.0000	8	8	

Crossbolt Spacer

BE 11/10/06

Location	Loc Qty	Loc Code	
LG	206		
69818	41		8
71839	165		
LG001	58		
67766	4		
68251	54		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Picklist Print

Tuesday, August 16, 2011 10:34:42 AM

Work Order ID: 72821

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/16/2011 **Required Date:** 8/26/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3490-3 Cross Bolt Spacer	Manufactured	No	160	Each	49.0000	4	4	BB 11/10/06 B 73295 -4

Location	Loc Qty	Loc Code
LG	49	
68952	2	
70768	47	

D3490-1 Cross Bolt Spacer	Manufactured	No	160	Each	130.0000	4	4	B 15 11/10/06

Location	Loc Qty	Loc Code
LG	128	
67773	5	
69823	58	
71841	65	4
LG001	2	
62450	2	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 72821

R11-08-14

RELEASED

GENERAL NOTES:

1) MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
2) FINISH:
   ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
   POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
   BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: N/A
7) WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
8) WELD PER DART QSI 004
9) INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES (Ø0.297) FOR WEARSHOE INSERTS
10) FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
    MINIMUM YIELD TENSILE STRENGTH = 35 KSI
    MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
11) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
12) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL (F)
13) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

REV.	DESCRIPTION	BY	DATE
F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16

DESIGN	PH	**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN	PH	
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 1 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
DE APPR.		
DATE	08.07.16	

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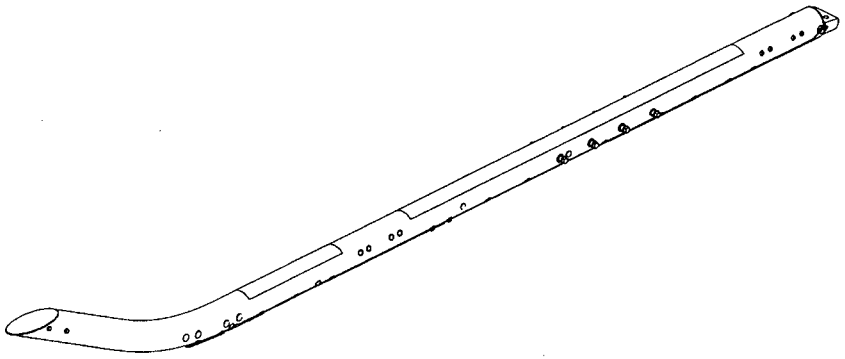
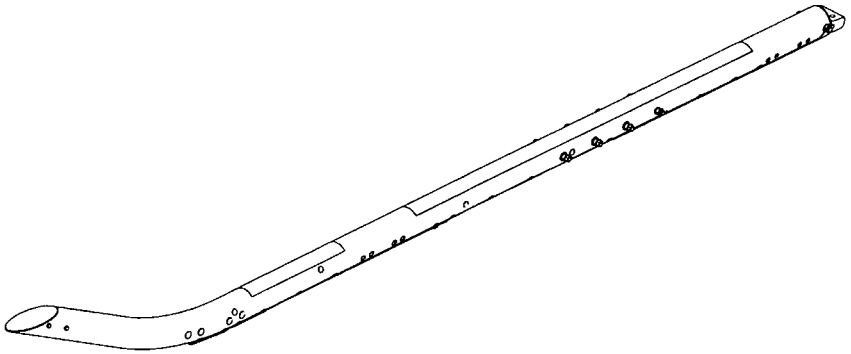
72821



D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
08.09.22

DESIGN	PCJ	**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN	PCJ	
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 2 OF 11
MFG. APPR.		
APPROVED		TITLE 350 SKIDTUBE ASSEMBLY — SCALE NTS
DE APPR.		
DATE 08.07.16		

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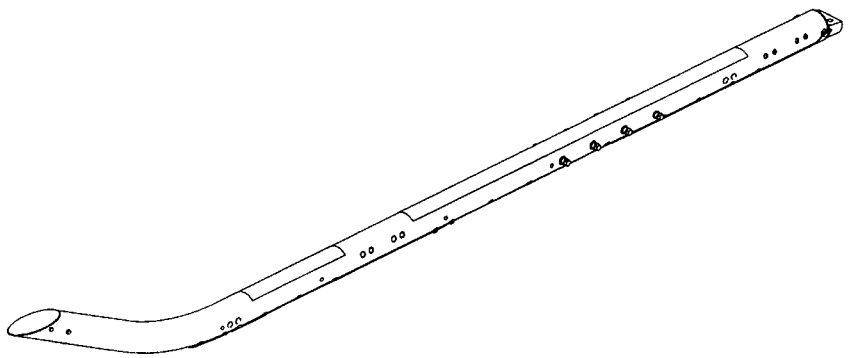
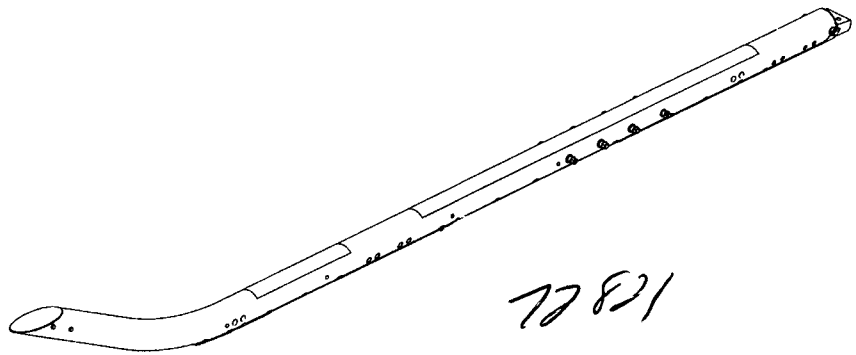


D2750-043 350 SKIDTUBE ASSEMBLY, LH



72821

D2750-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED 08-09-22

DESIGN	PD	**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN	PD	
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 3 OF 11
MFG. APPR.		
APPROVED		TITLE 350 SKIDTUBE ASSEMBLY — SCALE NTS
DE APPR.		
DATE 08.07.16		

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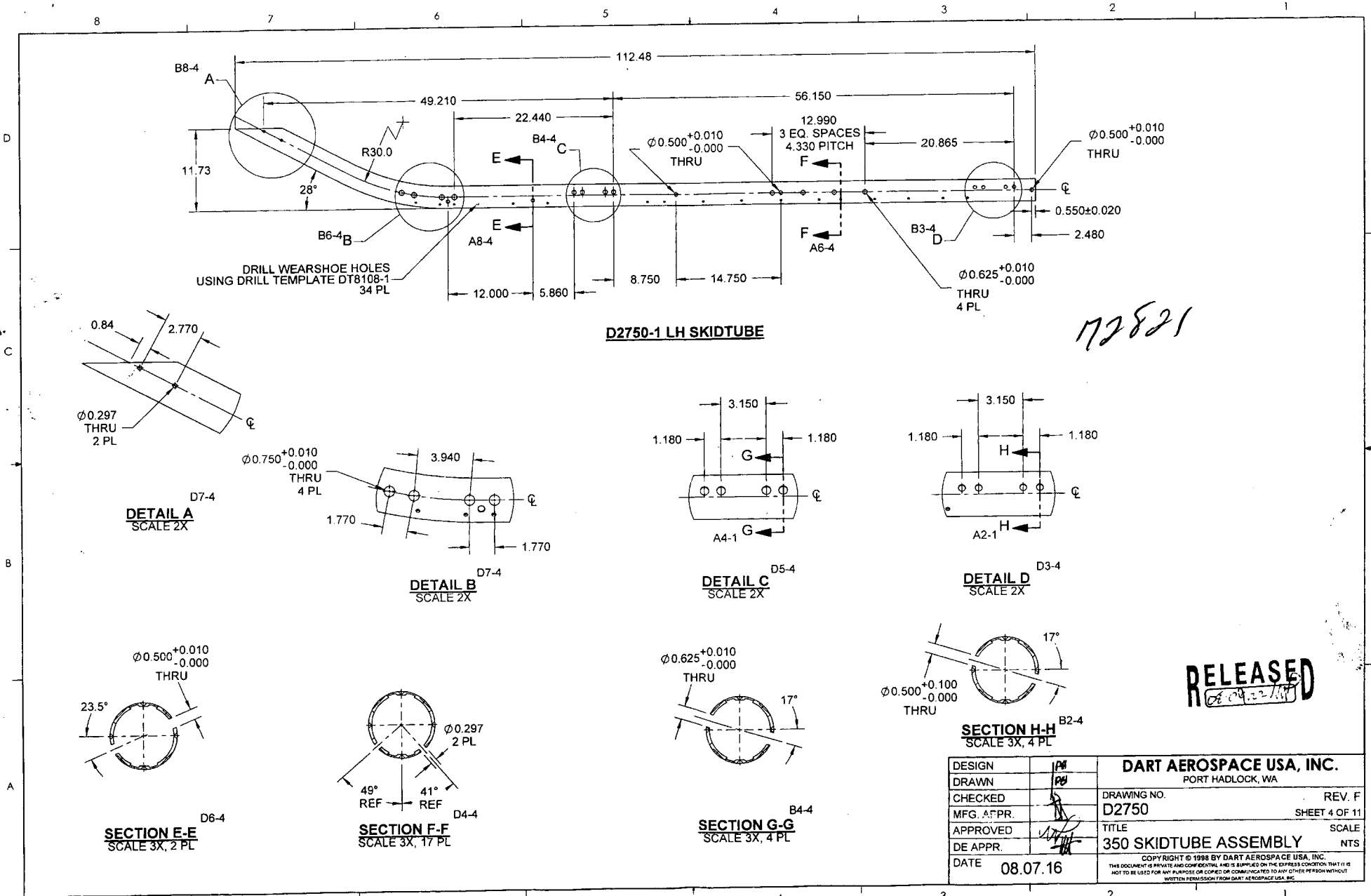
112.48
49.210
56.150
22.440
12.990
3 EQ. SPACES
4.330 PITCH
20.865
11.73
28°
R30.0
B8-4
A
B4-4
C
E
F
B6-4
B
A8-4
A6-4
B3-4
D
DRILL WEARSHOE HOLES
USING DRILL TEMPLATE DT8108-1
34 PL
12.000
5.860
8.750
14.750
Ø0.500 +0.010 -0.000
THRU
Ø0.625 +0.010 -0.000
THRU
4 PL
0.550±0.020
2.480
D2750-1 LH SKIDTUBE
0.84
2.770
Ø0.297
THRU
2 PL
DETAIL A
SCALE 2X
D7-4
Ø0.750 +0.010 -0.000
THRU
4 PL
3.940
1.770
1.770
DETAIL B
SCALE 2X
D7-4
3.150
1.180
1.180
G
A4-1
DETAIL C
SCALE 2X
D5-4
3.150
1.180
1.180
H
A2-1
DETAIL D
SCALE 2X
D3-4
Ø0.500 +0.010 -0.000
THRU
23.5°
SECTION E-E
SCALE 3X, 2 PL
D6-4
Ø0.297
2 PL
49°
REF
41°
REF
SECTION F-F
SCALE 3X, 17 PL
D4-4
Ø0.625 +0.010 -0.000
THRU
17°
SECTION G-G
SCALE 3X, 4 PL
B4-4
17°
Ø0.500 +0.100 -0.000
THRU
SECTION H-H
SCALE 3X, 4 PL
B2-4
RELEASED
DESIGN
DRAWN
CHECKED
MFG. APPR.
APPROVED
DE APPR.
DATE 08.07.16
DART AEROSPACE USA, INC.
PORT HADLOCK, WA
DRAWING NO. D2750
REV. F
SHEET 4 OF 11
TITLE 350 SKIDTUBE ASSEMBLY
SCALE NTS
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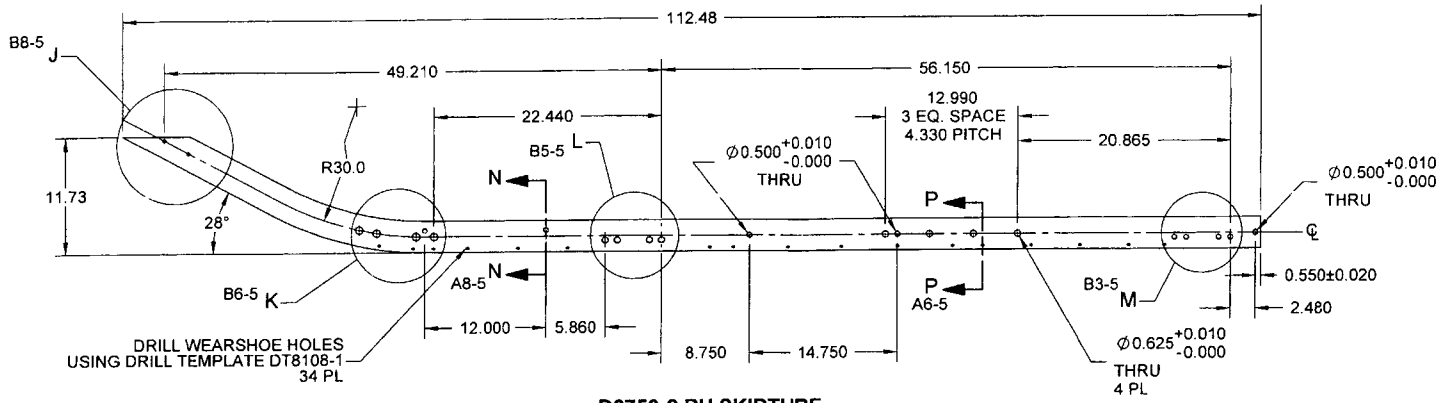
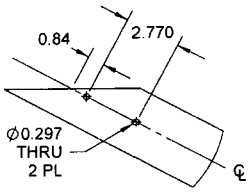
72821



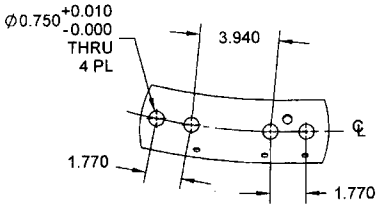
D2750-2 RH SKIDTUBE

72821



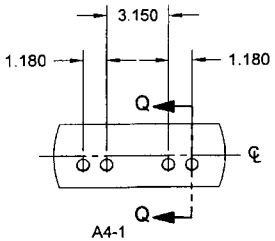
D8-5

DETAIL J
SCALE 2X



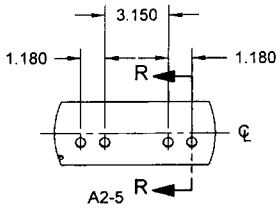
C7-5

DETAIL K
SCALE 2X



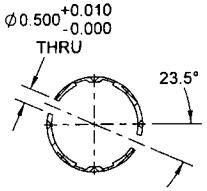
D6-5

DETAIL L
SCALE 2X



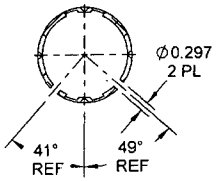
C3-5

DETAIL M
SCALE 2X



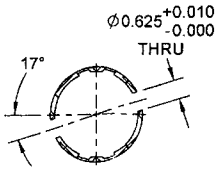
C6-5

SECTION N-N
SCALE 3X, 2 PL



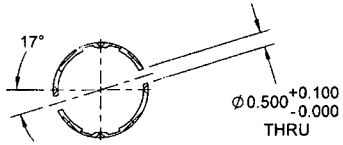
C4-5

SECTION P-P
SCALE 3X, 17 PL



B5-5

SECTION Q-Q
SCALE 3X, 4 PL



B3-5

SECTION R-R
SCALE 3X, 4 PL

RELEASED
08-9-22-16

DESIGN	PBF	**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN	PBF	
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 5 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
DE APPR.		
DATE	08.07.16	

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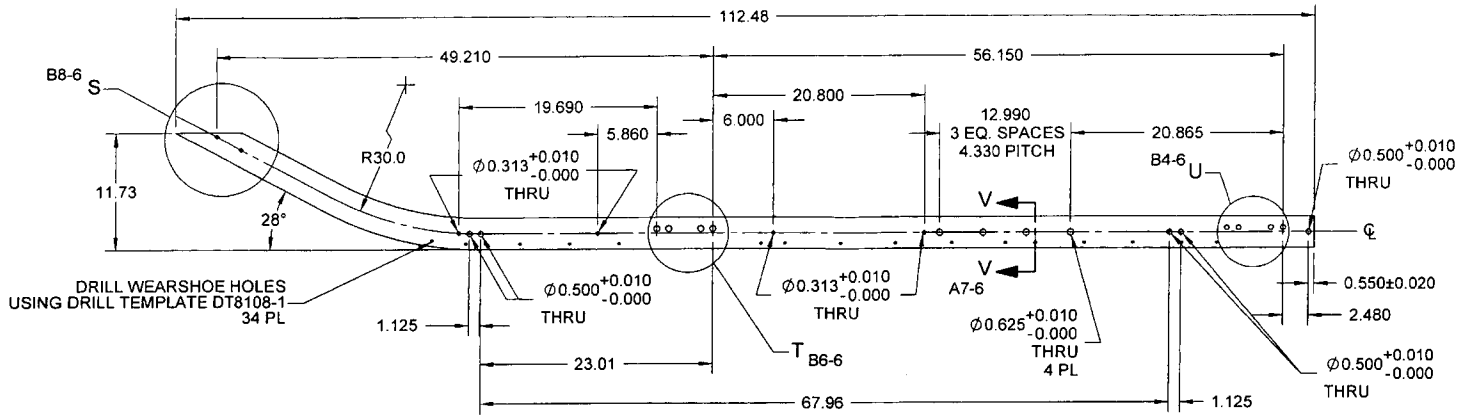
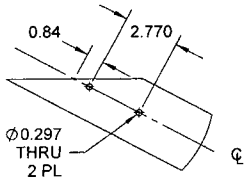
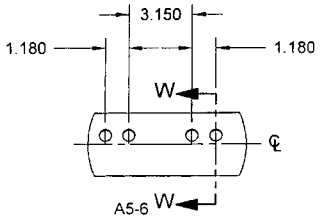


D2750-3 LH SKIDTUBE



DETAIL S D8-6
SCALE 2X



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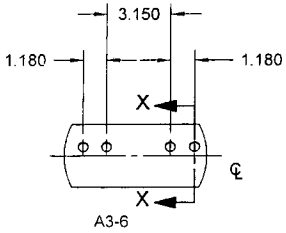
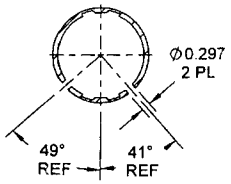


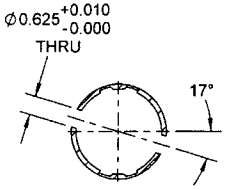
DETAIL U D3-6
SCALE 2X

72821

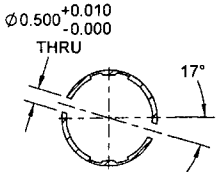
RELEASED 08.09.22



SECTION V-V C4-6
SCALE 3X, 17 PL



SECTION W-W B6-6
SCALE 3X, 4 PL



SECTION X-X B4-6
SCALE 3X, 4 PL

DESIGN		**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 6 OF 11
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DE APPR.		
DATE 08.07.16		

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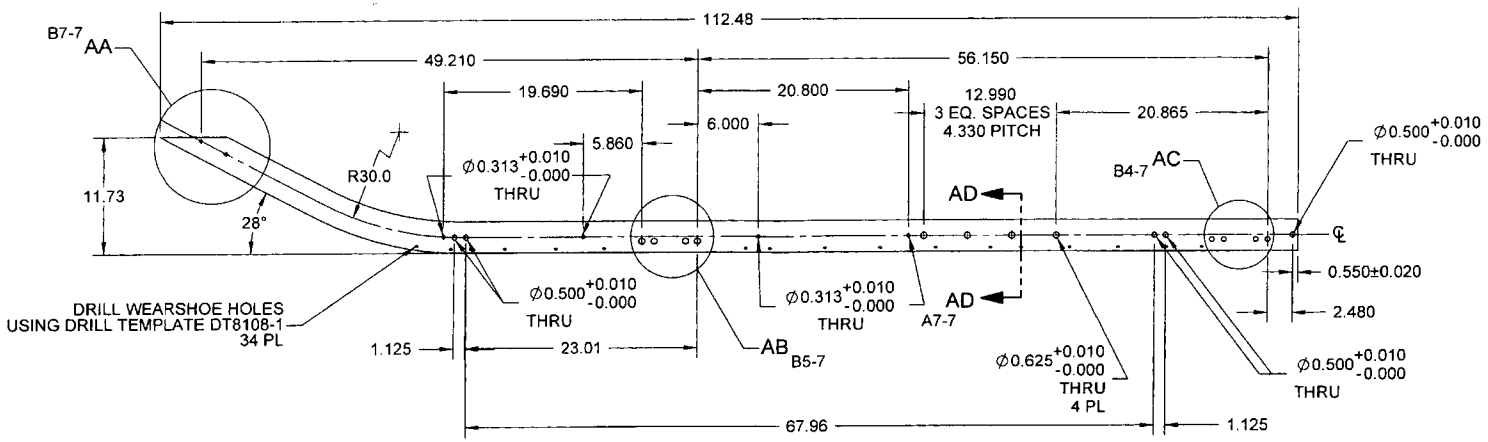
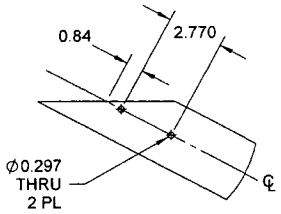
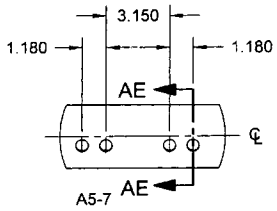


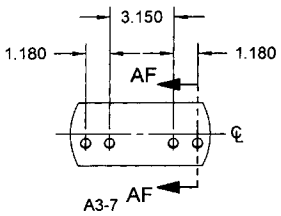
D2750-4 RH SKIDTUBE



DETAIL AA D7-7
SCALE 2X



DETAIL AB C4-7
SCALE 2X



DETAIL AC D3-7
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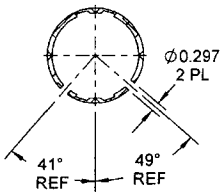
M2821



SECTION AD-AD D3-7
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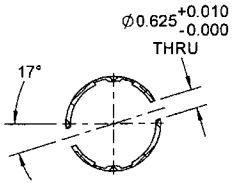
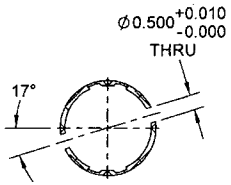


SECTION AE-AE B6-7
SCALE 3X, 4 PL



SECTION AF-AF B4-7
SCALE 3X, 4 PL

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08-24-22

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CHECKED		DRAWING NO. D2750 — REV. F — SHEET 7 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
DE APPR.		
DATE	08.07.16	

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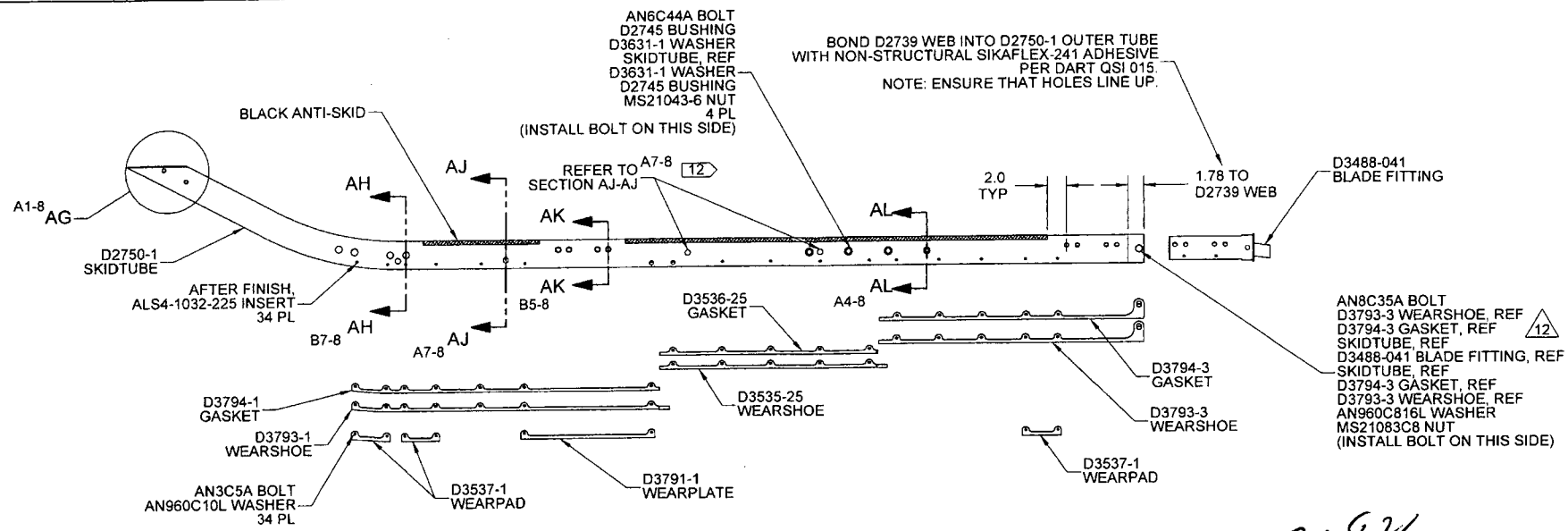
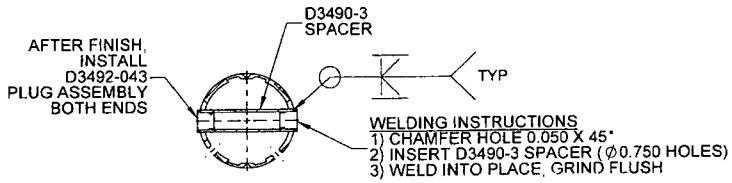


D2750-041 350 SKIDTUBE ASSEMBLY, LH

72821



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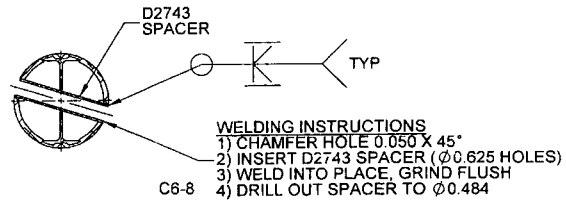

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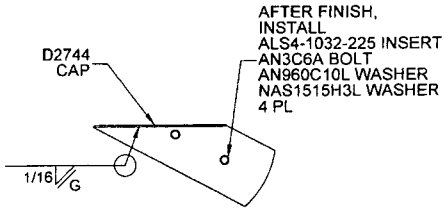

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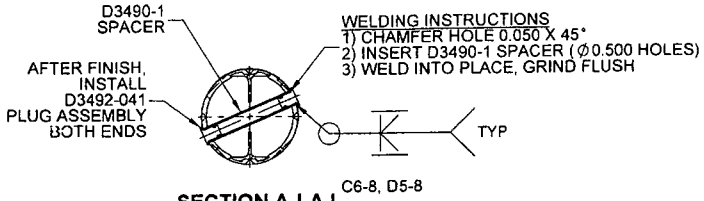
RELEASED
05.09.22



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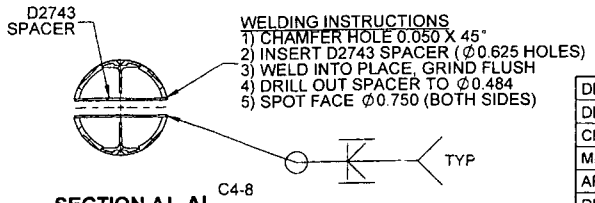

SECTION AL-AL
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

DESIGN		**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 8 OF 11
MFG. APPR.		
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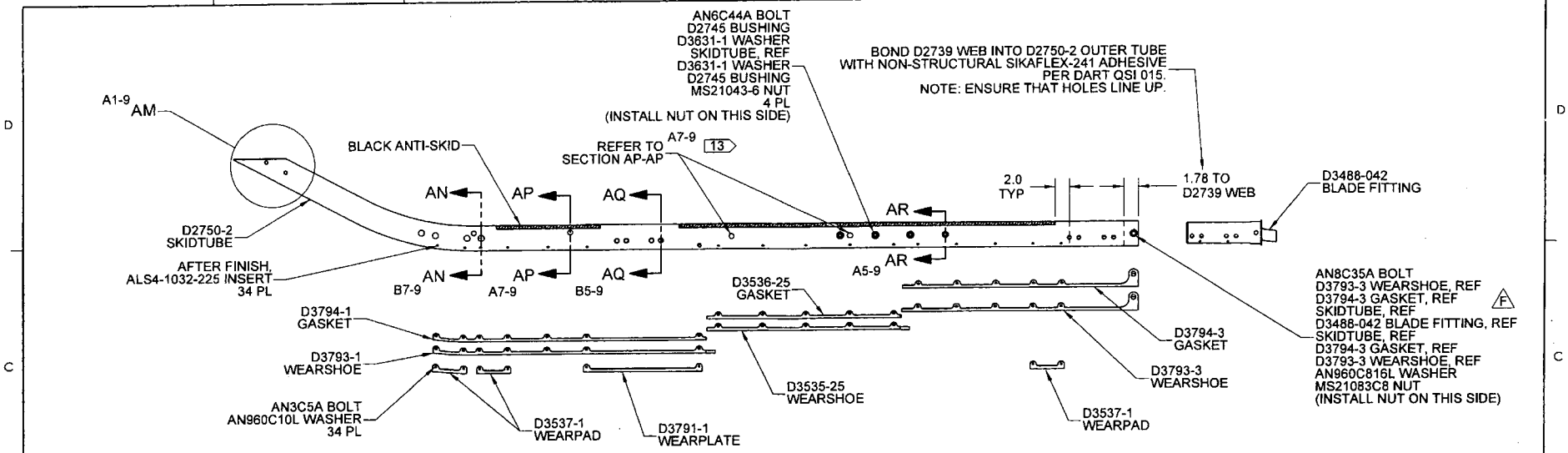
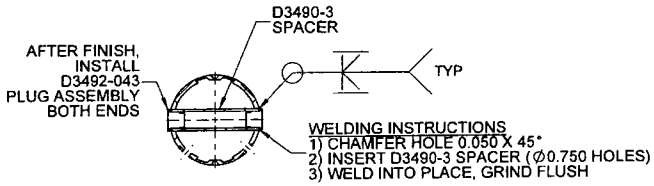


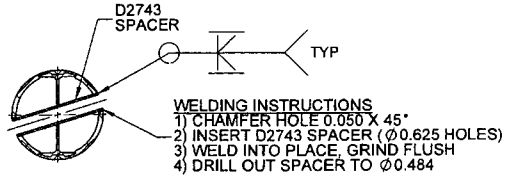
D2750-042 350 SKIDTUBE ASSEMBLY, RH

72821



C7-9

SECTION AN-AN
SCALE 3X, 4 PL



C5-9

SECTION AQ-AQ
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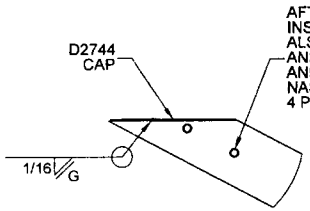
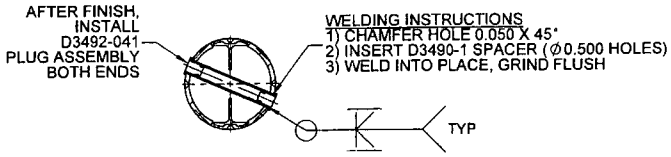


D8-9

DETAIL AM
SCALE 2X

RELEASED



C6-9, D5-9

SECTION AP-AP
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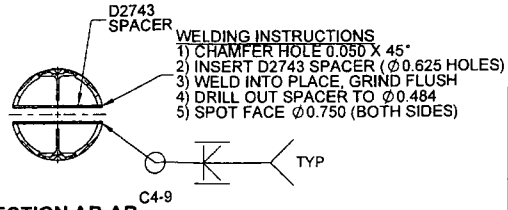

C4-9

SECTION AR-AR
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

DESIGN		**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 9 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
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DATE	08.07.16	

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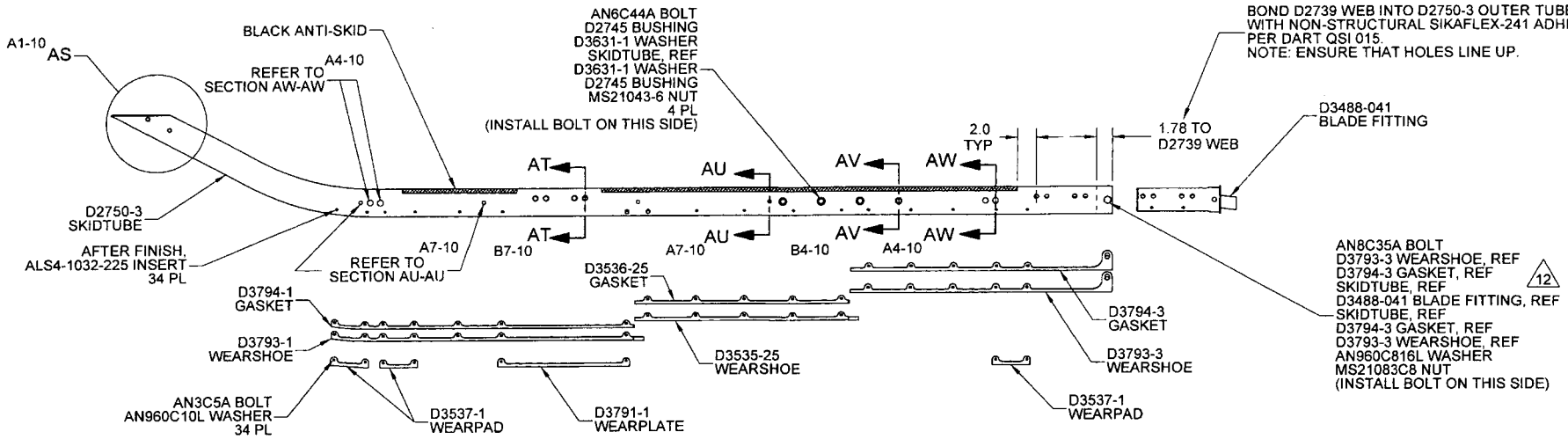
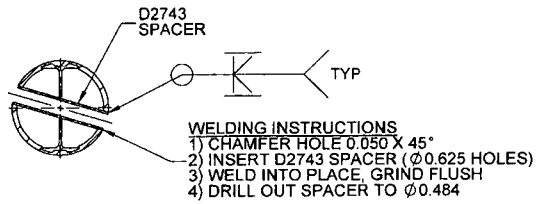


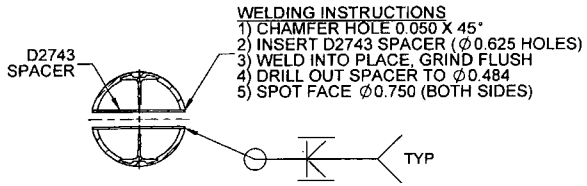
D2750-043 350 SKIDTUBE ASSEMBLY, LH

12821



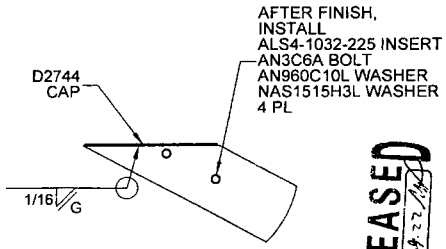
D6-10

SECTION AT-AT
SCALE 3X, 4 PL



D4-10

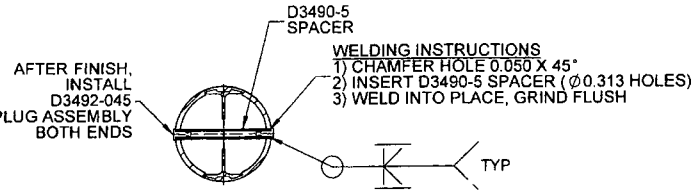
SECTION AV-AV
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)



D8-10

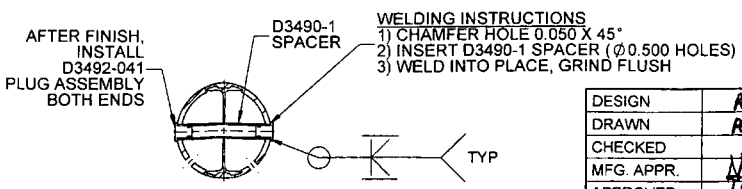
DETAIL AS
SCALE 2X

RELEASED



D5-10, D6-10

SECTION AU-AU
SCALE 3X, 4 PL



D4-10, D7-10

SECTION AW-AW
SCALE 3X, 4 PL

DESIGN		**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
DRAWN		
CHECKED		DRAWING NO. D2750 — REV. F — SHEET 10 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
DE APPR.		
DATE	08.07.16	

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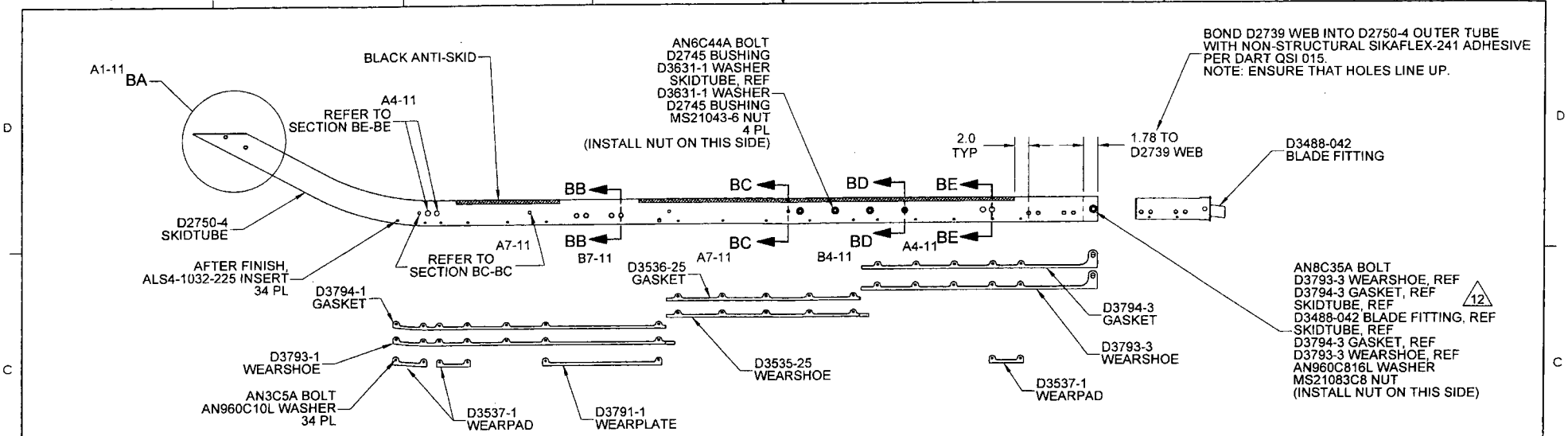
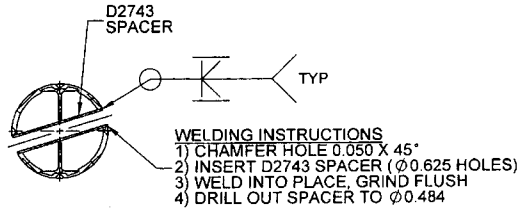
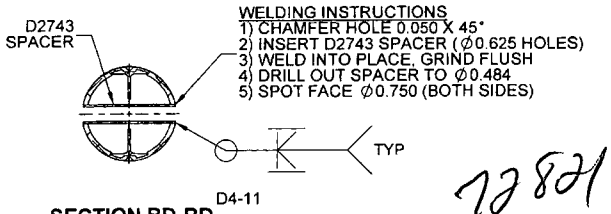


D2750-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED 06.09.22



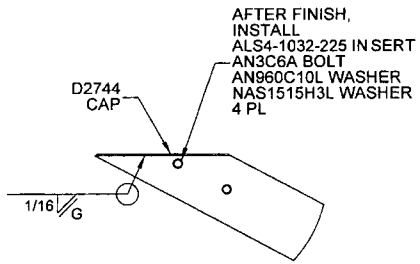
SECTION BB-BB D6-11
SCALE 3X, 4 PL



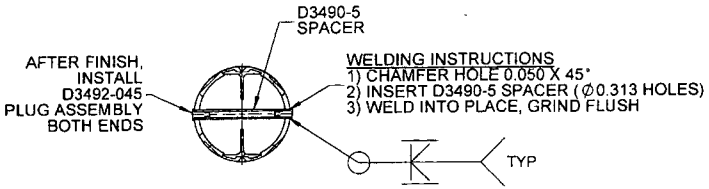
D4-11

SECTION BD-BD
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

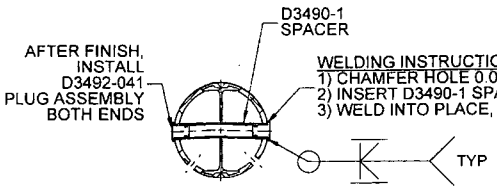
12821



DETAIL BA D8-11
SCALE 2X



SECTION BC-BC D5-11, C6-11
SCALE 3X, 4 PL



D4-11, D7-11

SECTION BE-BE
SCALE 3X, 4 PL

DESIGN		**DART AEROSPACE USA, INC.** PORT HADLOCK, WA
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CHECKED		DRAWING NO. D2750 — REV. F — SHEET 11 OF 11
MFG. APPR.		
APPROVED		TITLE: 350 SKIDTUBE ASSEMBLY — SCALE: NTS
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NO. 270

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: B 72821
Part number: D 350 636 012
Description: 350 skid tube
Welding Process: Tig[X] Mig[ ]
Base materiel: Alum
Current: AC[X] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[X]	fail[ ]
Penetration:	pass[X]	fail[ ]

UNACCEPTABLE

Cracks:	pass[X]	fail[ ]
Undercut:	pass[X]	fail[ ]
Pin holes:	pass[X]	fail[ ]
Overlap (cold lap)	pass[X]	fail[ ]
Porosity (surface):	pass[X]	fail[ ]
Coloration:	pass[X]	fail[ ]

Qualifier Pat Lewis **Date of Test Coupon** 11-10-07

Welder Barclay Elliott **Date of Test Coupon** 11-10-07

The above named individual is qualified in accordance with AWS D17.1.2001 to weld